

CALIFORNIA DEPARTMENT OF WATER RESOURCES

REPORT OF ACTIVITIES

JULY 2018

THE PURPOSE OF THIS REPORT...

is to provide a brief update to Central Valley Flood Protection Board (CVFPB) members on California Department of Water Resources (DWR) activities that occurred in the previous month. This report is organized by the five DWR mega-programs:

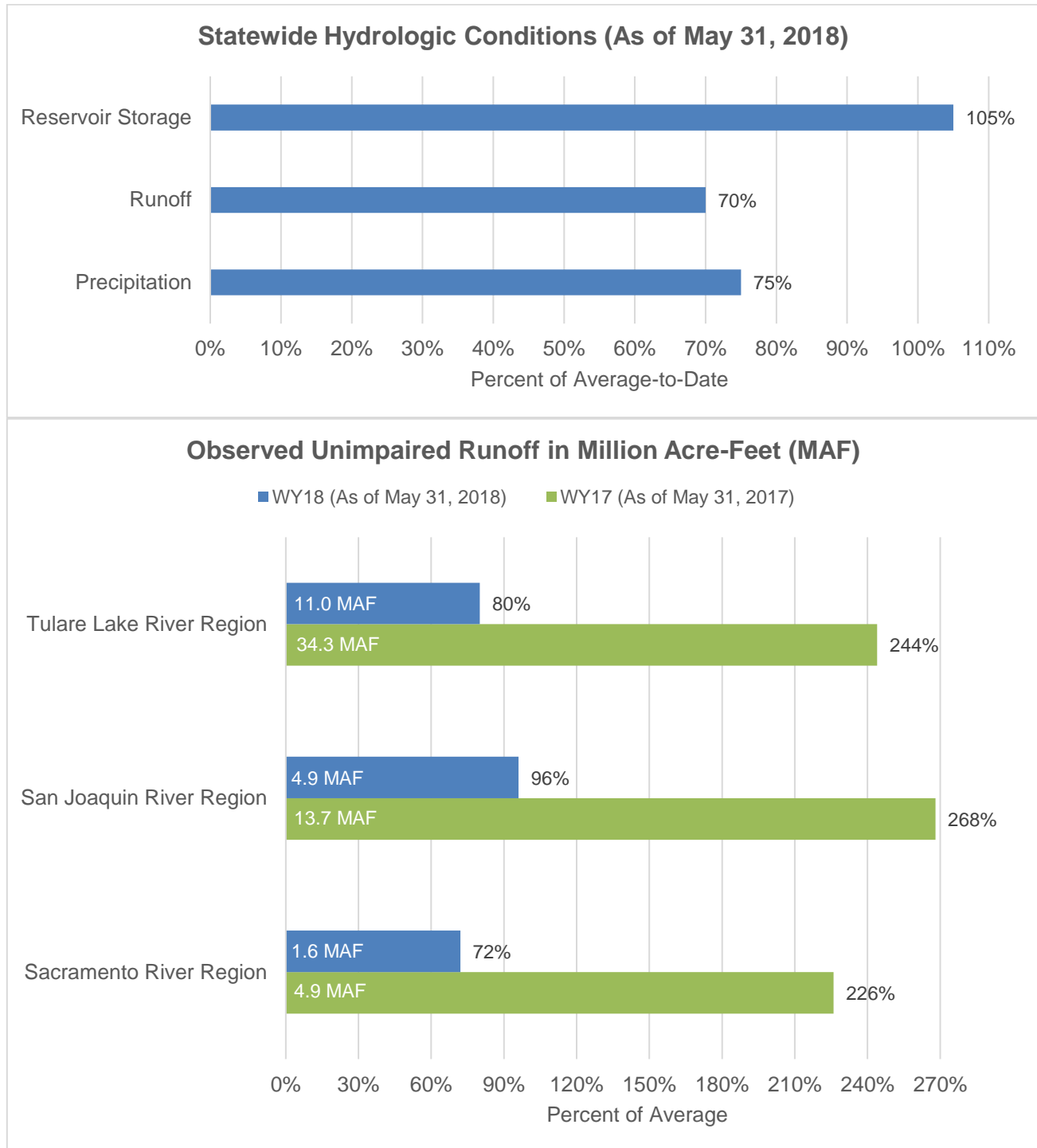
- Flood Emergency Response
- Flood Management Planning
- Floodplain Risk Management
- Flood Risk Reduction Projects
- Flood System Operations and Maintenance

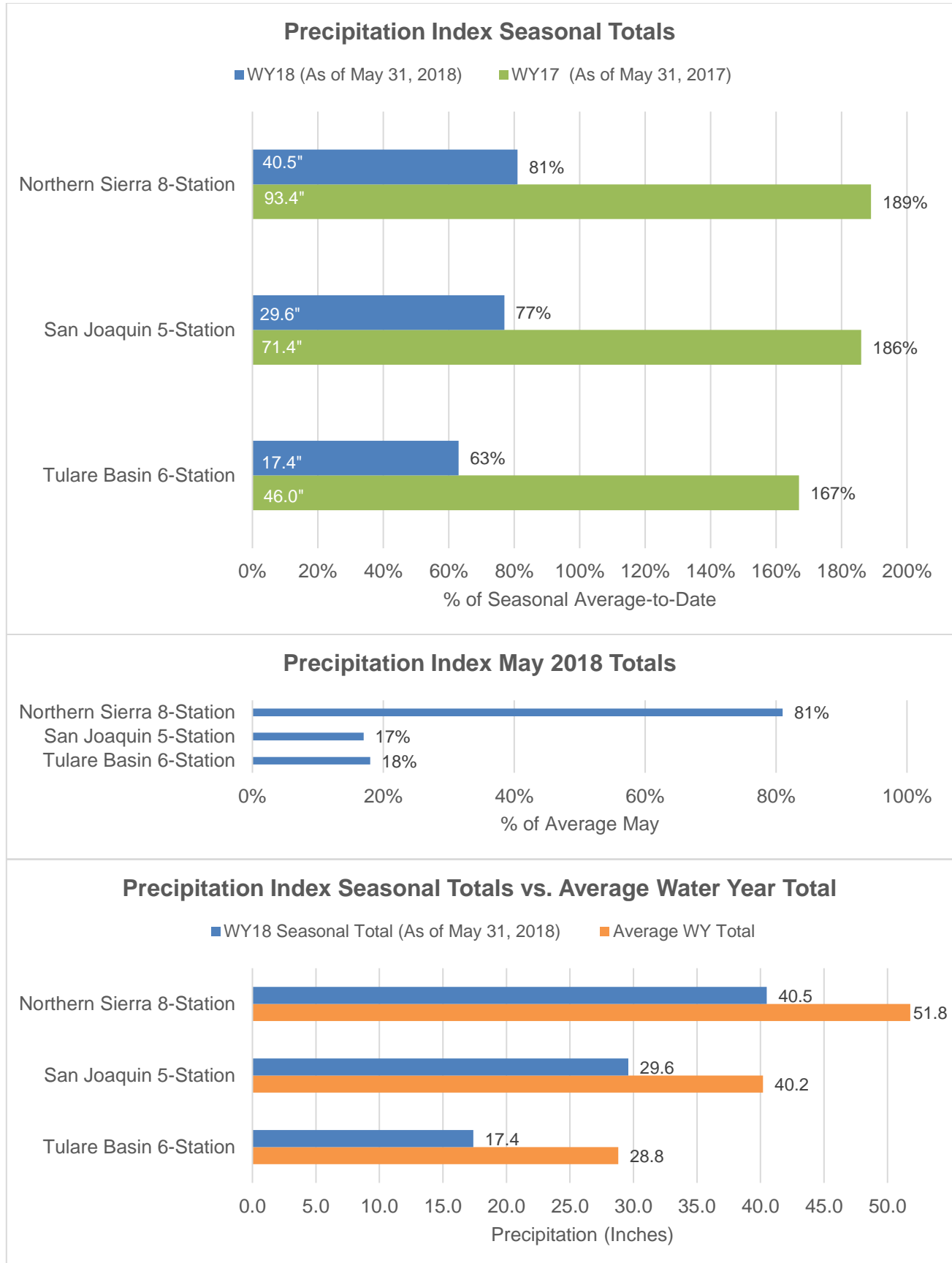
Only programs with updates for this month have been included in this report. Programs not listed in this month's report may be included in future reports if updates are provided.

A full list of programs and program descriptions are available upon request. Please email Mitra.Emami@water.ca.gov for questions or concerns.

FLOOD EMERGENCY RESPONSE (FER)

FER // HYDRO-CLIMATE DATA COLLECTION & PRECIPITATION / RUNOFF FORECASTING





Daily Precipitation (Inches) for Selected Stations as of May 31, 2018

Station	WY18 to 05/31/2018	% of Avg	WY17 to 05/31/2017	% of Avg	WY18 % of Avg WY (Oct 1–Sep 30)
Mount Shasta	19.03	46	58.04	142	44
Eureka	35.18	91	50.98	132	87
Redding	19.68	60	44.95	136	57
South Lake Tahoe	19.19	105	46.99	258	94
Sacramento Executive Airport	15.06	84	32.87	183	81
Santa Rosa (Sonoma Co AP)	24.20	68	57.94	163	67
San Francisco	17.41	75	31.96	138	74
Stockton	9.22	67	21.59	158	66
Yosemite	27.35	76	74.16	206	72
Monterey	13.26	84	24.13	153	82
Paso Robles	9.35	75	14.19	114	73
Fresno	6.73	61	17.20	155	59
Bakersfield	3.95	63	7.80	124	61
Death Valley	0.62	33	1.28	67	26
Los Angeles	4.58	31	17.68	122	31
Riverside	3.74	31	11.89	100	30
Palm Springs	1.69	36	6.96	147	29
San Diego	3.32	33	12.25	122	32

Key Reservoir Storage (1,000 AF) as of May 31, 2018

Reser- voir	River	Stor- age	Avg Stor- age	% Avg	Capa- city	% Capa- city	Flood Control Encroach- ment	Total Space Available
Trinity	Trinity	1,888	2,114	89	2,448	77	---	560
Shasta	Sacramento	3,955	3,901	101	4,552	87	-597	597
Lake	Feather	2,410	2,990	81	3,538	68	-1,128	1,128
New	Yuba	889	837	106	966	92	-77	77
Folsom	American	955	821	116	977	98	-22	22
New	Stanislaus	1,960	1,519	129	2,400	82	-460	460
Don	Tuolumne	1,902	1,553	122	2,030	94	-109	128
Lake	Merced	946	701	135	1,025	92	-25	79
Millerton	San	464	403	115	520	89	13	56
Pine Flat	Kings	882	722	122	1,000	88	-118	118
Isabella	Kern	257	299	86	568	45	-104	311
San Luis	(Offstream)	1,528	1,617	94	2,041	75	---	511

National Weather Service Climate Prediction Center (CPC) long-range, 1-month precipitation outlook for July 2018 (issued June 21, 2018), suggests:

- Above-average precipitation for the southern third of California
- Average precipitation for the remainder of the State

FER // RESERVOIR OPERATIONS & RIVER FORECASTING

- Statewide reservoir storage totaled 30.6 MAF as of May 31, 2018
 - 106 percent of average
 - 80 percent of capacity for this time of year.
- Maury Roos projects that the statewide end-of-June storage will drop to 28.2 MAF (approximately 100 percent of average).
- Reservoirs continue to draw down for deliveries and towards their respective fall targets.

Major Reservoirs in the Central Valley Storage as of 12 am on July 9, 2018

Reservoir	River	Current Storage (ac-ft)	% of Capacity	% of Avg	Storage Year Ago This Date	% of Capacity Year Ago This Date	% of Avg
Trinity Lake	Trinity	1,725,353	70	84	2,121,133	87	104
Shasta Lake	Sacramento	3,503,748	77	99	4,140,075	91	117
Lake Oroville	Feather	2,183,521	62	78	2,316,214	65	83
New Bullards Bar Res	Yuba	782,887	81	97	921,470	95	114
Folsom Lake	American	782,667	80	101	951,953	97	123
New Melones Res	Stanislaus	1,895,917	79	125	2,184,853	91	144
Don Pedro Res	Tuolumne	1,806,902	89	113	2,000,398	99	125
Lake McClure	Merced	863,451	84	123	1,001,411	98	143
Millerton Lake	San Joaquin	413,555	79	106	522,054	100	134
Pine Flat Res	Kings	614,842	61	96	988,712	99	155
San Luis Res	(Offstream)	1,095,078	54	91	1,989,461	97	165
Terminus	Kaweah	70,736	38	78	160,674	87	177
Success	Tule	39,368	48	87	83,511	101	185
Isabella	Kern	192,139	34	64	333,296	59	110

FER // FLOOD EMERGENCY PREPAREDNESS & OPERATIONS

- Staff continued to update the FERIX website to include the Emergency Operations Plans and Contingency Maps developed from the Flood Emergency Response Grant projects.
- Staff continued to make improvements to the Flood Emergency Management System (FEMS) which is used by the Flood Operations Center staff to manage incidents, track resources and requests, and develop status reports and action plans.

Chester Diversion Dam Inundation Maps and Emergency Action Plan (EAP)

- Staff continues developing inundation maps and EAP for Board-owned Chester Diversion Dam in Plumas County.
- Staff presented an update on the project at the June Board meeting.
- The inundation maps will be submitted to the Division of Safety of Dams (DSOD) by August 2018
- The final EAP will be submitted to Cal OES by the January 1, 2019 deadline.
- Staff are also assisting DSOD with their inundation mapping reviews for other high-hazard dams.

Water Project Export Disruptions for Multiple-Island Breach Scenarios using the Delta Emergency Response Tool Report

- Staff completed the report.
- The report documents the expected outages for the State Water Project and Central Valley Project following large-scale levee failures in the Delta and recommends strategies to reduce outage times after an event.
- The report will be included as a supplement to the *Delta Flood Emergency Management Plan*.
- Staff have presented on the tool and report to DWR Executives, stakeholders, and the Board.

Statewide Flood Emergency Response Grants Round 1

- Staff continued to manage two grant contracts with local agencies to improve their flood emergency response capabilities.
- The two grantees are currently working on final invoices and closeout reports.
- The deliverables from the completed grant projects include emergency operations plans, flood contingency maps, decision support tools, communications equipment, flood fight supplies, and enhanced early warning systems.

FLOOD RISK REDUCTION PROJECTS (FRRP)

FRRP // DELTA LEVEE SYSTEM INTEGRITY (DLSI)

Delta Levees Maintenance Subvention Program

- **Subventions Program FY 2016-17**
 - 67 final claims received.
 - 50 final claims for \$5.6 million are being processed for reimbursement.
- **Subventions Program FY 2017-18**
 - 72 applications were received and reviewed.
 - CVFPB approved \$12 million for the FY 2017-18 Funding Plan on June 23, 2017.
 - 72 work agreements have been executed.
- **Subventions Program FY 2018-19**

- 72 applications for \$54 million were received and reviewed.
- The CVFPB approved \$12 million for the FY 2018-19 Funding Plan on May 18, 2018.

FRRP // USACE/CVFPB PROJECTS

American River Watershed Project – Natomas Basin

- Reach I Contract 1 Solicitation for June 7, 2018 - July 10, 2018 with project award date in August 2018.
- An agency level protest for the Reach D construction contract was received on May 11, 2018.
- Notice to proceed issued on June 28, 2018.

Folsom Dam Modifications Joint Federal Project (JFP)

- Post Construction status as of April 24, 2018, is as follows: USACE is negotiating with the Contractors regarding project punch list items.

Folsom Dam Raise Project

- USACE Engineering Design (PED) of dikes #1-6 is underway.
- USACE bid acceptance for the Pre-Engineering Design (PED) of dikes #7 & 8, Left Wing Dam and Right Wing Dam, is awaiting USACE contract approval.
- The Project Partnership Agreement (PPA) with USACE and local sponsor (SAFCA) is being reviewed by USACE Counsel.

Marysville Ring Levee Improvement Project

- Construction of Phase 2A-North is continuing with construction of slurry wall in July.

FRRP // URBAN FLOOD RISK REDUCTION PROGRAM (UFRR)

Knights Landing Levee Repair Project (EIP)

- Knights Landing Repair Project Amendment 3 was signed by DWR and Knights Landing Ridge Drainage District, and processed by DGS on June 20, 2018.
- The amendment increased project costs
 - Total Project Cost from \$7,045,000 to \$8,418,000
 - State Share Project Cost from \$6,240,000 to \$7,121,548.
- During the final phase of construction minor amounts of additional repair work was identified that was not included in the original Scope of Work.
- Completion of construction for the project is scheduled for November 2018.

FRRP // SYSTEMWIDE FLOOD RISK REDUCTION PROGRAM (SFRR)

Lower Elkhorn Basin Levee Setback (LEBLS) Project

- Public comment period (May 25, 2018 to July 9, 2018) has ended.

FLOOD SYSTEM OPERATIONS & MAINTENANCE (FSO&M)

FSO&M // CHANNEL EVALUATION AND REHABILITATION

INSPECTION AND EVALUATION

Mercury Characterization Studies

- Staff continue to meet with representatives of SAFCA and their consultants to discuss and assess possible collaborative remedial efforts for the Basin that may be useful in expediting permitting processes for implementation of regional flood improvement and mitigation projects on which SAFCA and DWR are partners.
- Staff have provided comments on the UCD modeling efforts and are scheduled to receive the final trap efficiency report by July 30, 2108. This report represents the final deliverable on the trap efficiency modeling. The results will be summarized in a report to the CVRWQCB in November 2019.

NON-ROUTINE ACTIVITIES

Elder Creek Channel Rehabilitation Project

- Year 2 of project activities will begin in August 2018.

FSO&M // FLOOD CONTROL FACILITIES EVALUATION AND REHABILITATION

INSPECTION AND EVALUATION

- Evaluations began in May 2018 will be concluded by the end of August 2018.

ROUTINE OPERATIONS AND MAINTENANCE

- At the Sacramento weir, structure maintenance is in progress.

NON-ROUTINE PROJECTS

Collecting Canal Bridge CC-2 and CC-4

- One bid was received from a pre-cast concrete vendor for the CC-2 bridge components.
- The Sutter Maintenance Yard has identified other potential vendors and is pursuing these bids.
- Geotechnical soil results to support design of the new CC-4 bridge are scheduled for receipt by July 30, 2018.

Knights Landing Outfall Gates Fish Barrier

- FMO is collaborating with Department of Fish and Wildlife, National Marine Fisheries Service, and Reclamation District 108 to find a solution to prevent potential adult

salmonid straying through the Knights Landing Outfall Gates into the Colusa Basin.

- Previous fish exclusion barrier became inoperable and was removed in fall 2016.
- Two meetings in June 2018 discussed possible changes to operation and replacing exclusion barrier with an improved, more robust design and debris removal system.

Sacramento Maintenance Yard (SMY) Paving Project

- DOE has executed a contract to rehabilitate underground utilities and restore the parking area. Work expected to start in July 2018.

FSO&M // LEVEE OPERATIONS AND MAINTENANCE COMPONENTS

ROUTINE OPERATIONS AND MAINTENANCE

Activities that Occurred in June 2018

Location	Activity	Status
Cache Creek	20 miles of vegetation mowing was completed	Complete
Cache Creek Settling Basin	2 miles of vegetation cutting and limbing	Complete
East Levee of the Sutter Bypass	4 gates were repaired or replaced	Complete
	Vegetation mowing	In Progress
	Rodent depredating	In Progress
Upper 2 miles of the East Yolo Bypass	2 miles of gravel placed on crown road	Complete
	Vegetation mowing	In Progress
MA 3	3.5 miles of vegetation mowing	Complete
	Vegetation spot spraying	In Progress
	Rodent depredating	In Progress
MA 5	Vegetation disking	In Progress
	33.42 miles of gravel placed on crown road	Complete
MA 7	Vegetation mowing	In Progress
MA 9	Vegetation mastication	In Progress
	Vegetation cutting and limbing	In Progress
Putah Creek	Rodent baiting	Complete
	Repair or replacement of gates	Complete
Sacramento Bypass	Vegetation mowing	In Progress
Tisdale Bypass	Vegetation spot spraying	In Progress
	Rodent depredating	In Progress
Wadsworth Canal	Vegetation mowing	In Progress
	Rodent depredating	In Progress
West Yolo Bypass Units 1-4	3.5 miles of vegetation mowing	Complete
	1 gate was repaired	Complete

FSO&M // FLOOD SYSTEM EVALUATION AND REHABILITATION

Deferred Maintenance Project (DMP)

- Phase 1 video inspections

- 134 of 321 pipes passing through levees in areas of DWR “O&M” responsibility have been video inspected by DWR.
- 32 DWR directed funding agreements have been executed with LMAs
 - 25 contracts in place and LMAs are obtaining bids and contracting for the inspections
 - 7 contracts under finalization process.
- Cured-In-Place Pipe contract for pipe rehabilitation has been awarded to Michels Pipeline Construction, Inc. (office maintained in Woodland, Ca).
- Hydro vacuum/flushing followed by video inspection scheduled to continue in MA 5, MA 7, and MA 16 in the coming weeks.
- AECOM continuing with electro-magnetic studies for missing pipes, for two MA 9 pipes in the non-participating LMAs. This work scheduled to be completed by end of July 2018.

FSO&M // LEVEE REPAIRS

2017 Storm Damage DWR Emergency Rehabilitation (SDDER) Program

- Construction is scheduled to begin by August 1, 2018 on the final nine critical repair sites identified for state rehabilitation.
- Construction is anticipated for fall 2019 on the previously identified serious sites.